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EXAMINER

CUEVAS, PEDRO J

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 05/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/757,701

Applicant(s)

KUDLACIK, HENRY WILLIAM

Examiner

Pedro J. Cuevas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133)
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 13-18 and 24-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 13-18 and 24-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-7, 13-18, and 24-38 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 7, 24-27, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,177,392 A to Scott in view of U.S. Patent No. 4,227,106 to Druss, deceased et al., further in view of U.S. Patent No. 1,822,261 to V. G. Apple.

Scott clearly teaches the construction of an improved rotor and stator high efficiency, low reactance disk-type machine comprising:

a binding ring (714);

a lamination (column 7, lines 55-59) coupled to said binding ring, and

a tie (11) coupled to said lamination and said binding ring to enable said winding to be held within said slot, and arranged around a portion of said lamination and a portion of said binding ring.

However, it fails to disclose a lamination having a slot formed therein for receiving a winding, including:

a first tooth and a second tooth defining a slot between said first tooth and said second tooth, and said first tooth and said second tooth being integral with said lamination, and

a third tooth integral with said lamination to define another slot between said second tooth and said third tooth to receive said winding.

Druss, deceased et al. teach the construction of a high voltage induction motor with a stator having:

a first tooth and a second tooth defining a slot between said first tooth and said second tooth (Figure 8), and said first tooth and said second tooth being integral with said lamination; and

a third tooth (Figure 8) integral with said lamination to define another slot between said second tooth and said third tooth to receive said winding,

for the purpose of providing a core of magnetic material having a plurality of winding receiving slots formed in it.

V. G. Apple teach the construction of a bar wound field element for an electrical machine stator (Figure 9), which can also be applied to an electrical machine rotor (Figure 10), inherently teaching an equivalency between stator and rotor field element support systems, for the purpose of providing a structure which will considerably increase the number of applications wherein a bar winding may be employed, and for providing a structure wherein the greatest degree of electrical and magnetic balance and the greatest efficiency, for a given material, is secured.

It would have been obvious to one skilled in the art at the time the invention was made to use the stator disclosed by Druss, deceased et al. on the improved high efficiency, low reactance

disk-type machine disclosed by Scott using the teaching of V. G. Apple for the purpose of providing a core of magnetic material having a plurality of winding receiving slots formed in it.

Also, it has been held that forming in one piece an article, which has formerly been formed in two pieces and put together, involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). The term "integral" is sufficiently broad to embrace constructions united by such means as fastening and welding. *In re Hotte*, 177 USPQ 326, 328 (CCPA 1973).

4. With regards to claim 7, Scott in view of Wielt et al., further in view of V. G. Apple disclose another tie coupled to the binding ring as shown in Figure 7.

5. Claims 13-15, 18, 32-34, and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,177,392 A to Scott in view of U.S. Patent No. 4,227,106 to Druss, deceased et al., further in view of U.S. Patent No. 1,822,261 to V. G. Apple as applied to claims 1-4, 7, 24-27, and 30-31 above, further in view of U.S. Patent No. 4,007,867 to Wielt et al.

Scott in view of Druss, deceased et al. in view of V. G. Apple disclose the construction of an improved rotor and stator high efficiency, low reactance disk-type machine as described above.

Wielt et al. teach a method of making a resiliently compressed laminated core for a dynamoelectric machine for the purpose of constructing a dynamoelectric machine.

It would have been obvious to one skilled in the art at the time the invention was made to use the method disclosed by Wielt et al. on the end winding support disclosed by Jäger et al. for the purpose of a dynamoelectric machine.

6. Claims 5-6 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,177,392 A to Scott in view U.S. Patent No. 4,227,106 to Druss, deceased et al., in view of U.S. Patent No. 1,822,261 to V. G. Apple as applied to claims 1-4, 7, 24-27, and 30-31 above, further in view of U.S. Patent No. 3,876,893 to Ross.

Scott in view of Druss, deceased et al., in view of V. G. Apple disclose the construction of an improved rotor and stator high efficiency, low reactance disk-type machine and a method of making a resiliently compressed laminated core for a dynamoelectric machine as described above.

However, it fails to disclose the use of:

a felt ring arranged around an outer circumference of said binding ring so that said felt ring is arranged between said binding ring and said lamination; and

a tire arranged around an outer circumference of said binding ring so that said tire is arranged between said binding ring and said lamination.

Ross teach the use of:

a felt ring (6) arranged around an outer circumference of said binding ring so that said felt ring is arranged between said binding ring and said lamination; and

a tire (8) arranged around an outer circumference of said binding ring so that said tire is arranged between said binding ring and said lamination, for the purpose of

providing a annular support is located within the stator core and spaced radially therefrom to establish a circumferentially extending gap therebetween and this gap is filled out by a circumferentially extending array of wedge means incorporating elastically compressible inserts so as to establish a radially resilient mounting for the annular winding support that provides for a predetermined expansion limit.

It would have been obvious to one skilled in the art at the time the invention was made to use the felt ring and tire disclosed by Ross on the improved rotor and stator high efficiency, low reactance disk-type machine and a method of making a resiliently compressed laminated core for a dynamoelectric machine disclosed by Scott in view of Druss, deceased et al., in view of V. G. Apple for the purpose of providing a annular support is located within the stator core and spaced radially therefrom to establish a circumferentially extending gap therebetween and this gap is filled out by a circumferentially extending array of wedge means incorporating elastically compressible inserts so as to establish a radially resilient mounting for the annular winding support that provides for a predetermined expansion limit.

7. Claims 16-17 and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,177,392 A to Scott in view U.S. Patent No. 4,227,106 to Druss, deceased et al., in view of U.S. Patent No. 1,822,261 to V. G. Apple, and in view of U.S. Patent No. 4,007,867 to Wielt et al. as applied to claims 13-15, 18, 32-34, and 37-38 above, further in view of U.S. Patent No. 3,876,893 to Ross.

Scott in view of Druss, deceased et al., in view of V. G. Apple in view of Wielt et al. disclose the construction of an improved rotor and stator high efficiency, low reactance disk-type

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machine and a method of making a resiliently compressed laminated core for a dynamoelectric machine as described above.

However, it fails to disclose the use of:

a felt ring arranged around an outer circumference of said binding ring so that said felt ring is arranged between said binding ring and said lamination; and

a tire arranged around an outer circumference of said binding ring so that said tire is arranged between said binding ring and said lamination.

Ross teach the use of:

a felt ring (6) arranged around an outer circumference of said binding ring so that said felt ring is arranged between said binding ring and said lamination; and

a tire (8) arranged around an outer circumference of said binding ring so that said tire is arranged between said binding ring and said lamination,

for the purpose of providing a annular support is located within the stator core and spaced radially therefrom to establish a circumferentially extending gap therebetween and this gap is filled out by a circumferentially extending array of wedge means incorporating elastically compressible inserts so as to establish a radially resilient mounting for the annular winding support that provides for a predetermined expansion limit.

It would have been obvious to one skilled in the art at the time the invention was made to use the felt ring and tire disclosed by Ross on the disclose the construction of an improved rotor and stator high efficiency, low reactance disk-type machine and a method of making a resiliently compressed laminated core for a dynamoelectric machine disclosed by Scott in view of Druss, deceased et al., in view of V. G. Apple ion view of Wielt et al. for the purpose of providing a

annular support is located within the stator core and spaced radially therefrom to establish a circumferentially extending gap therebetween and this gap is filled out by a circumferentially extending array of wedge means incorporating elastically compressible inserts so as to establish a radially resilient mounting for the annular winding support that provides for a predetermined expansion limit.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO 892.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R. Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas
May 9, 2003

